

REMARKS

Claims 1-3, 5-7, and 10-15 were pending when last examined, all of which stand rejected. Claims 3 and 12 are objected to. Claim 1 is amended.

Objections

Claim 3 is objected to because it was labeled as “Original” when there was an amendment. Correction has been made and Claim 3 is now labeled as “Previously Presented” as opposed to “Original.”

Claim 12 is objected to for not indicating the change from “or” to “and” in the last line. Claim 12 has been presented in its original form (with “or”).

Claim Rejections – 35 USC §112

Claim rejections under this section are overcome by the amendments to Claims 1 and 12 shown above.

Claim Rejections – 35 USC §103

Claims 1-3, 5-7, and 12-15 are rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 6,680,722 to Hiraki et al. (“Hiraki”) in view of U.S. Patent No. 6,333,727 to Mizumaki (“Mizumaki”).

Claim 1 is patentable over Hiraki and Mizumaki because it recites that “... the timing controller ... does not provide the nth image data to the data driver when all bits of the nth image data and the (n-1)th image data are complementary to each other.” As stated in the Application, for example on page 10, lines 24 through page 11, line 19, the timing controller of the invention does not provide the nth image data to the data driver when all bits of the nth image data and the (n-1)th image data are complementary to each other.

Page 8 of the Office Action dated November 21, 2007 states the following:

... it would have been obvious to one of ordinary skill in the art that the combined teachings of Hiraki and Mizumaki disclose that ... the timing controller ... does not provide the nth image data to the data driver when all bits of the nth image data and the (n-1)th image data are ... complementary to each other Thus, Claim 1 is distinguishable from a combination of Hiraki and Mizumaki (see Mizumaki Col. 5, Ln. 11-61, Col. 6, Ln. 55-67, Col. 7, Ln. 1-23,

and Col. 8, Ln. 24-38; see Hiraki, Col. 9, Ln. 40-54, Col. 10, Ln. 61-67, Col. 13, Ln. 66-67 through Col. 14, Ln. 1-27).

However, none of the cited sections mentions or even suggests not updating the pixel data of the pixel in one frame if its pixel data is complementary to the pixel data for the previous frame. The rejection fails to establish a prima facie case of obviousness.

Mizumaki compares the pixel data of each pixel for one frame to the pixel data of the same pixel for the next frame and does not update the pixel data in the next frame if the difference between the gray scale level represented by the pixel data for the one frame and the gray scale level represented by the pixel data for the next frame is not significant. In other words, the same gray scale level is used in the one frame and the next frame if their pixel data are not different enough (e.g., Mizumaki, col. 8, lines 24-38). However, Mizumaki fails to mention that the timing controller does not provide the nth image data to the data driver if all bits of the nth image data and the (n-1)th image data are *complementary* to each other.

Claims 2-7 depend from Claim 1 and are thus patentable over Hiraki and Mizumaki for the same reason as Claim 1.

Claim 12 is patentable over Hiraki and Mizumaki because it recites "... inverting the (n-1)th image data and providing data voltages corresponding thereto when all bits of the nth image data and the (n-1)th image data are complementary to each other" Although page 15 of the Office Action states that Mizumaki's Col. 7, Ln. 46-67 through Col. 8, Ln. 1-38 teach this element, the cited section is in fact silent about any data inversion. The cited section explains that if the difference between the pixel data for one frame and the pixel data for the next frame is not significant, then the pixel data of the next frame is not updated. There is no mention or suggestion about inverting the pixel data from one frame, and no teaching about what to do when image data are complementary between two frames.

Claims 13-15 depend from Claim 12 and are thus patentable over Hiraki and Mizumaki for the same reason as Claim 12.

Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Hiraki in view of Mizumaki and U.S. Patent No. 6,624,868 to Terukina et al. ("Terukina"). This rejection is based on the assumption that Hiraki and Mizumaki disclose all the elements of Claim 1.

However, as explained above, this is not the case. Thus, Claim 10 is patentable over a combination of Hiraki, Mizumaki, and Terukina.

Claim 11 is rejected under 35 USC 103(a) as being unpatentable over Hiraki in view of Mizumaki and U.S. Patent No. 6,356, 260 to Montalbo (“Montalbo”). This rejection is based on the assumption that Hiraki and Mizumaki disclose all the elements of Claim 1. However, as explained above, this is not the case. Thus, Claim 11 is patentable over a combination of Hiraki, Mizumaki, and Montalbo.

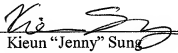
Conclusion

Based on the foregoing, Claims 1-3, 5-7, and 10-15 are now in condition for allowance. The Director is hereby authorized to charge any fees, or credit any overpayment, to Deposit Account No. 50-2257. Please telephone the undersigned attorney at (408) 392-9250 if there are any questions.

Respectfully submitted,

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